

CLAIMS:

1. A coating composition for protecting a coating of paint on an article, such as an automobile body, the composition comprising:

5 from about 1.5 to about 4 weight percent of a first film-forming acrylic resin having an average molecular weight of from about 235,000 to about 285,000;

10 from about 4 to about 8 weight percent of a second film-forming acrylic resin having an average molecular weight of from about 175,000 to about 225,000;

from about 1 to about 3 weight percent of a caustic selected from the group consisting of sodium hydroxide, potassium hydroxide, and mixtures thereof; and

15 from about 75 to about 85 weight percent water, all weight percents being based on the total weight of the composition.

2. The composition according to claim 1, wherein the composition has a pH of from about 7.5 to about 9.0.

20 3. The composition according to claim 1, wherein the composition has a viscosity of from about .00 to about 500 centipoise.

25 4. The composition according to claim 1, wherein the first and second acrylic resins are copolymers of alpha-beta ethylenically unsaturated carboxylic acid monomers and ethylenically unsaturated esters.

5. The composition according to claim 1, wherein the first and second acrylic resins are poly(ethyl acrylate/methyl methacrylate/acrylic acid) copolymers.

5 6. The composition according to claim 1, further comprising:

from about 0.25 to about 2 weight percent of a chelating agent;

10 from about 2 to about 5 weight percent of a plasticizer for the first and second acrylic resins;

from about 0.25 to about 1 weight percent of a surface wetting agent; and

15 a viscosity controller in an amount which controls the viscosity of the composition in the range of from about 100 to about 500 centipoise.

20 7. The composition according to claim 6, wherein the plasticizer is an acrylic resin having an average molecular weight of from about 5000 to about 10,000, the viscosity controller is a poly(styrene/alpha-methylstyrene/butylacrylate/acrylic acid) having an average molecular weight of from about 2000 to about 10,000, and the viscosity controller is employed in an amount from about 5 to about 7 weight percent based on the total weight of the composition.

25 8. A coating composition for protecting a coating of paint, the composition comprising:

from about 1.5 to about 4 weight percent of a first film-forming acrylic resin having an average molecular weight of from about 235,000 to about 285,000;

from about 4 to about 8 weight percent of a second film-forming acrylic resin having an average molecular weight of from about 175,000 to about 225,000, wherein the first and second acrylic resins are copolymers of alpha-beta ethylenically unsaturated carboxylic acid monomers and ethylenically unsaturated esters;

from about 1 to about 3 weight percent of a caustic selected from the group consisting of sodium hydroxide, potassium hydroxide, and mixtures thereof so that the composition has a pH of from about 7.5 to about 9.0;

from about 0.25 to about 2 weight percent of a chelating agent;

from about 2 to about 5 weight percent of plasticizer for the first and second acrylic resins;

from about 0.25 to about 1 weight percent of a surface wetting agent;

a viscosity controller in an amount which controls the viscosity of the composition in the range of from about 100 to about 500 centipoise; and

from about 75 to about 85 weight percent water, all weight percents being based on the total weight of the composition.

9. A method for making a coating composition for protecting a coating of paint on an automobile body, the method comprising:

heating water from about 140 to about 200°F;

admixing to the heated water from about 1 to about 3 weight percent solid caustic selected from the

group consisting of sodium hydroxide, potassium hydroxide, and mixtures thereof;

5 admixing to the heated water from about 1.5 to about 4 weight percent of a first film-forming acrylic resin having an average molecular weight of from about 235,000 to about 285,000 and from about 4 to about 8 weight percent of a second film-forming acrylic resin having an average molecular weight of from about 175,000 to about 225,000;

10 mixing the acrylic resin/caustic/water mixture until the acrylic resins are dissolved in the water; and

15 admixing additional water into the acrylic resin/caustic/water composition in an amount so that the total water in the composition is from about 75 to about 85 weight percent, the weight percents being based on the total weight of the composition.

20 10. The method according to claim 9, further comprising admixing, to the heated water, from about 0.25 to about 2 weight percent of a chelating agent, from about 2 to about 5 weight percent of a plasticizer for the film-forming acrylic resins, from about 0.25 to about 1 weight percent of a surface wetting agent, and a viscosity controller in an amount which controls the viscosity of the composition in the range of from about 25 100 to about 500 centipoise.

30 11. The method according to claim 9, wherein the plasticizer is an acrylic resin having an average molecular weight of from about 5000 to about 10,000, the viscosity controller is a poly(styrene/alpha-methylstyrene/butylacrylate/acrylic acid) having an

average molecular weight of from about 2000 to about 10,000, and the viscosity controller is employed in an amount from about 5 to about 7 weight percent based on the total weight of the composition.

5 12. A method for protecting a coating of paint on an article, such as an automobile body, from scratches, the method comprising coating onto the paint, a composition which forms a removable protective coating.

10 13. The method according to claim 12, wherein the composition forms a water-soluble coating and is removable from the article by washing with water, the method further comprising removing the water-soluble coating by washing with water.

15 14. The method according to claim 12, wherein the composition includes from about 1.5 to about 4 weight percent of a first film-forming acrylic resin having an average molecular weight of from about 235,000 to about 285,000;

20 from about 4 to about 8 weight percent of a second film-forming acrylic resin having an average molecular weight of from about 175,000 to about 225,000, wherein the first and second acrylic resins are copolymers of alpha-beta ethylenically unsaturated carboxylic acid monomers and ethylenically unsaturated
25 esters;

from about 1 to about 3 weight percent of a caustic selected from the group consisting of sodium hydroxide, potassium hydroxide, and mixtures thereof so that the composition has a pH of from about 7.5 to about 9.0;

from about 0.25 to about 2 weight percent of a chelating agent;

from about 2 to about 5 weight percent of a plasticizer for the first and second acrylic resins;

from about 0.25 to about 1 weight percent of a surface wetting agent;

a viscosity controller in an amount which controls the viscosity of the composition in the range of from about 100 to about 500 centipoise; and

from about 75 to about 85 weight percent water, all weight percents being based on the total weight of the composition.